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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,983	03/01/2002	Goran Hedberg	1654.1001	2233

21171 7590 07/21/2003

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EXAMINER

SHAW, CLIFFORD C

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/084,983

Applicant(s)

HEDBERG, GORAN

Examiner

Clifford C Shaw

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-8, 11-16 and 19 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10, 17 and 18 is/are allowed.
- 6) ☒ Claim(s) 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**Detailed Action**

1.) Applicant's election without traverse of the species of group 5 in Paper No. 5, filed on 7/1/2003 is acknowledged. Claims 9, 10, 17, and 18 are examined in the instant Office action.

Claims 1-8, 11-16, and 19 are withdrawn from further consideration as being drawn to a non-elected species.

2.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3.) Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baavhammar (5,313,045) taken with Allen (5,676,867). The patent to Baavhammar discloses an arc stud apparatus wherein the energy accumulated by a drawn arc is measured and if the energy does not reach a predetermined level within a predetermined time, the process is stopped (see the discussion at column 4, lines 20-30). The claim differs from Baavhammar in alluding to a stud "welder" in the claim preamble while the system of Baavhammar is directed to brazing. To the extent that the intended use of applicant's apparatus for welding can be considered structurally limiting, it is not deemed to distinguish over the prior art. It would have been obvious to have applied the energy based control scheme taught by Baavhammar to a stud welder, the motivation

Art Unit: 1725

being the teachings of Allen that it is advantageous to control stud welding based on monitored energy (see figure 6 and columns 9-10 in Baavhammar).

4.) Claims 10, 17, and 18 are allowable over the prior art of record. None of the prior art of record teaches or suggests a stud welding system as set forth in claim 10 wherein the drawn arc stud processing circuit acts to pull back the stud before the molten stud has cooled down in the manner set forth in the claim. None of the prior art of record teaches or suggests the extrapolation of a forecasted energy as set forth in claim 17. Claim 18 is allowable because it depends from allowed claim 17.

5.) The patents to Raycher et al. (4,804,811) and Wilkinson et al. (4,456,808) are cited to show prior art stud welding systems wherein arc energy is monitored.

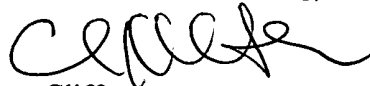
Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 703-308-1712. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 703-308-3318. The fax phone numbers for

Art Unit: 1725

the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in black ink, appearing to read 'Clifford C Shaw', written in a cursive style.

Clifford C Shaw  
Primary Examiner  
Art Unit 1725

July 17, 2003